

RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5

SURFACE LOCATION: 254' FSL & 326' FWL

SECTION 7, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO. GROUND LEVEL ELEVATION: 6160'

PILOT HOLE BOTTOM HOLE LOCATION: 216' FSL, 1944' FWL

SECTION 7, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #1 BOTTOM HOLE LOCATION: 1521' FSL, 200' FEL

SECTION 8, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #2 BOTTOM HOLE LOCATION: 305' FNL, 200' FEL

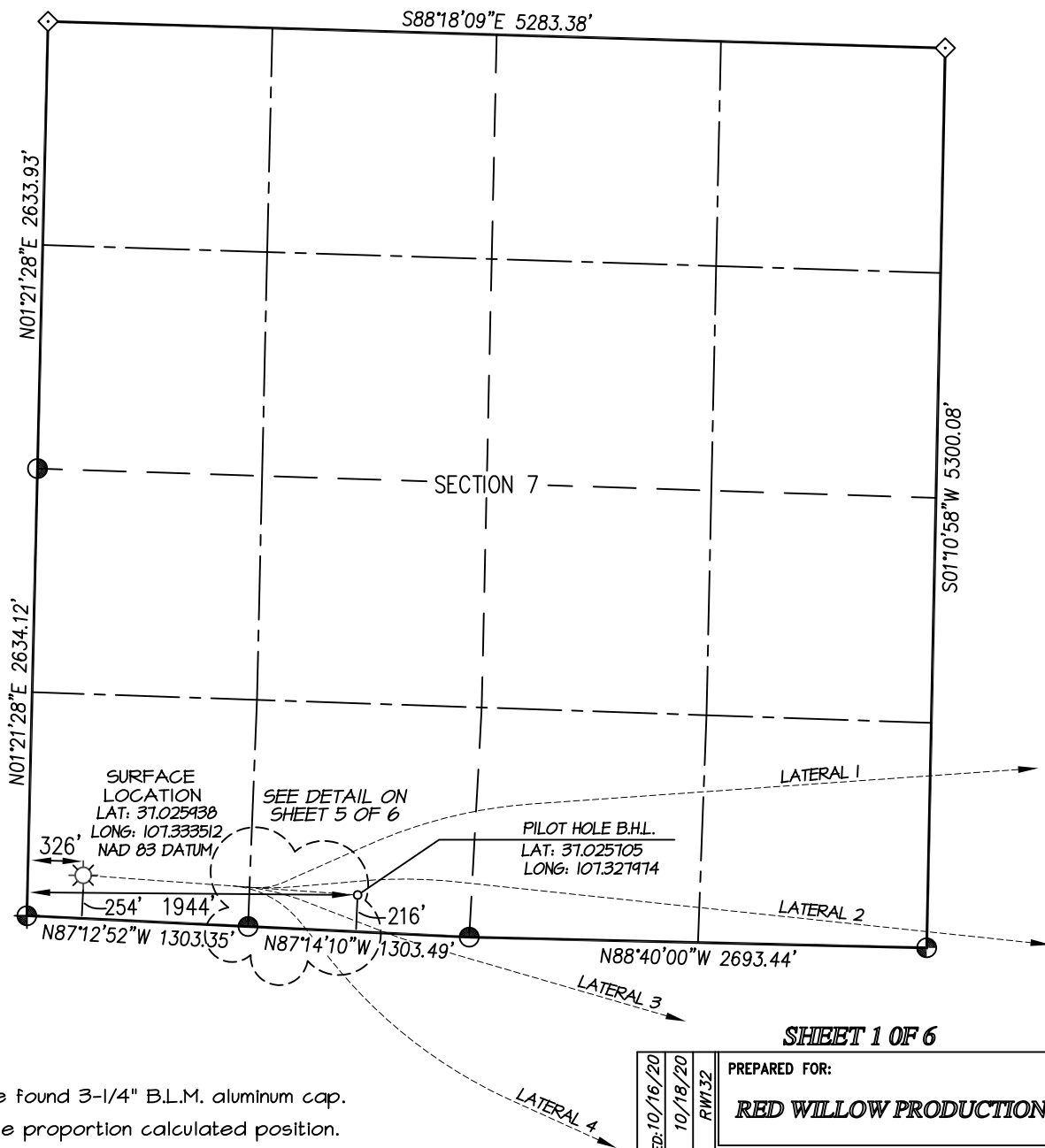
SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #3 BOTTOM HOLE LOCATION: 2181' FNL, 200' FEL

SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #4 BOTTOM HOLE LOCATION: 1042' FSL, 200' FEL

SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.



SHEET 1 OF 6

⊕ and ⊙ denote found 3-1/4" B.L.M. aluminum cap.
◇ denotes single proportion calculated position.

NOTE:

SEE SHEET 6 OF 6 FOR COORDINATE TABLE,
SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

DRAWN BY: K.R.		SURVEYED: 10/16/20		PREPARED FOR:	
CHECKED BY: K.R.		DRAWN: 10/18/20		RED WILLOW PRODUCTION CO.	
FILE NO. RW132WP4		JOB NO. RW132		NORTHSTAR SURVEYING & MAPPING, INC. 768 County Rd. 308 DURANGO, CO. 81303 (970) 385-0851	

RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5

SURFACE LOCATION: 254' FSL & 326' FWL

SECTION 7, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO. GROUND LEVEL ELEVATION: 6160'

PILOT HOLE BOTTOM HOLE LOCATION: 216' FSL, 1944' FWL

SECTION 7, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #1 BOTTOM HOLE LOCATION: 1521' FSL, 200' FEL

SECTION 8, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #2 BOTTOM HOLE LOCATION: 305' FNL, 200' FEL

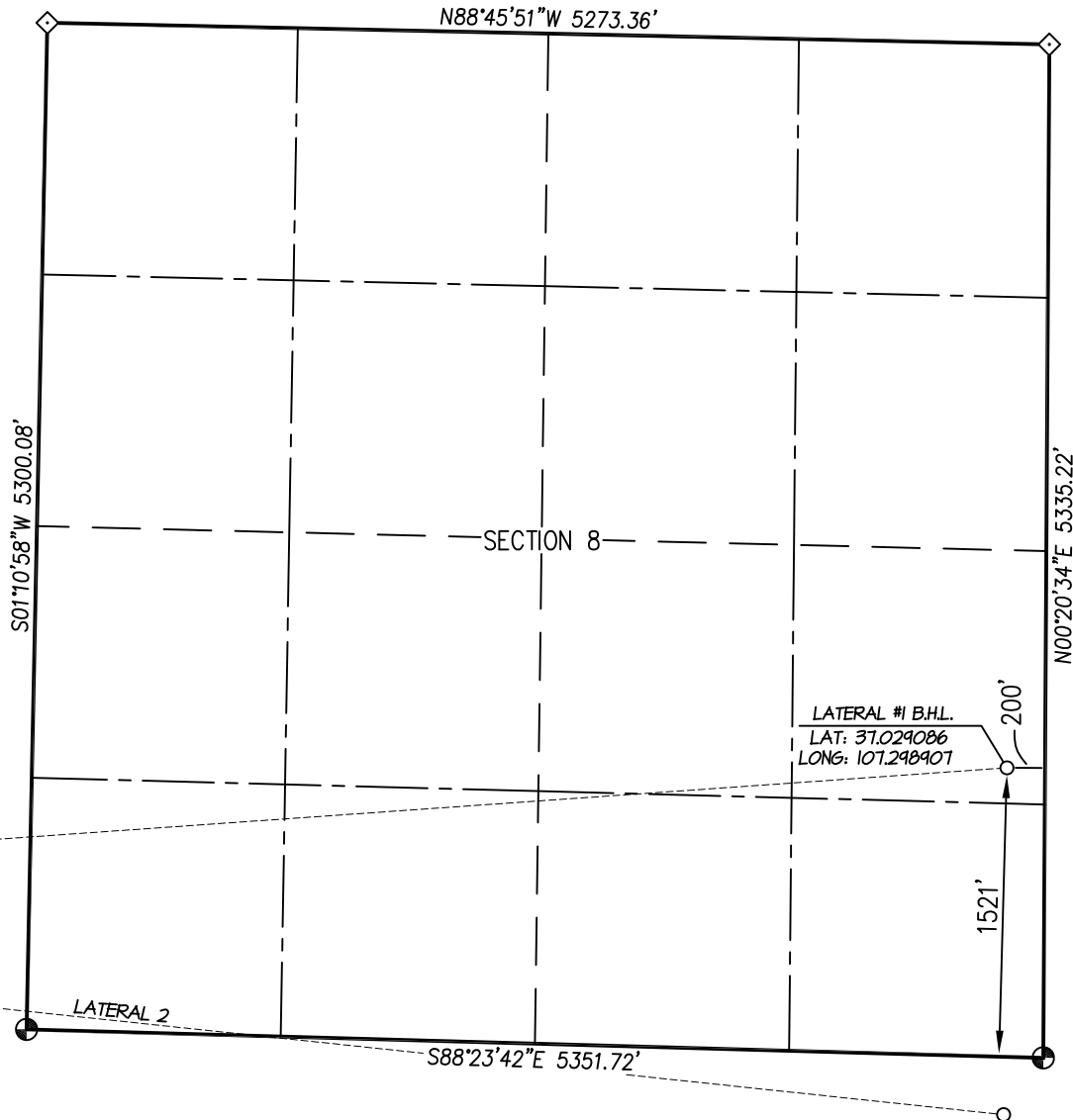
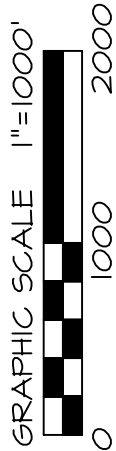
SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #3 BOTTOM HOLE LOCATION: 2181' FNL, 200' FEL

SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #4 BOTTOM HOLE LOCATION: 1042' FSL, 200' FEL

SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.



SHEET 2 OF 6

- ⊕ and ⊙ denote found 3-1/4" B.L.M. aluminum cap.
◇ denotes single proportion calculated position.

NOTE:

SEE SHEET 6 OF 6 FOR COORDINATE TABLE,
SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

DRAWN BY: K.R.	SURVEYED: 10/16/20	PREPARED FOR: <i>RED WILLOW PRODUCTION CO.</i>
CHECKED BY: K.R.	DRAWN: 10/18/20	
FILE NO. RW132	JOB NO. RW132	
<i>NORTHSTAR</i> <i>SURVEYING & MAPPING, INC.</i>		
768 County Rd. 308 DURANGO, CO. 81303 (970) 385-0851		

RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5

SURFACE LOCATION: 254' FSL & 326' FWL

SECTION 7, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO. GROUND LEVEL ELEVATION: 6160'

PILOT HOLE BOTTOM HOLE LOCATION: 216' FSL, 1944' FWL

SECTION 7, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #1 BOTTOM HOLE LOCATION: 1521' FSL, 200' FEL

SECTION 8, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #2 BOTTOM HOLE LOCATION: 305' FNL, 200' FEL

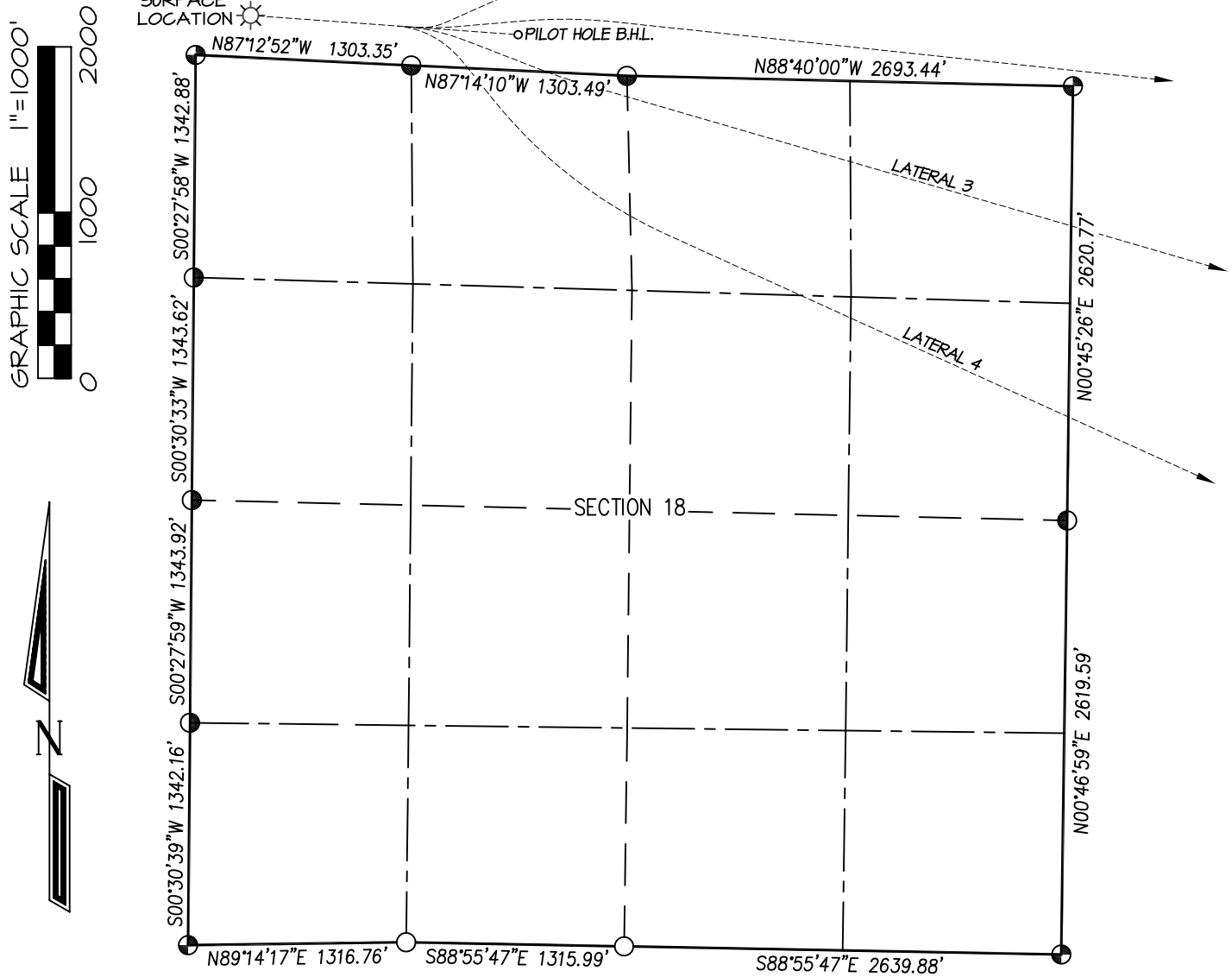
SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #3 BOTTOM HOLE LOCATION: 2181' FNL, 200' FEL

SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.

LATERAL #4 BOTTOM HOLE LOCATION: 1042' FSL, 200' FEL

SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.



SHEET 3 OF 6

⊕ and ⊙ denote found 3-1/4" B.L.M. aluminum cap.
◇ denotes single proportion calculated position.

NOTE:

SEE SHEET 6 OF 6 FOR COORDINATE TABLE,
SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

DRAWN BY: K.R.		SURVEYED: 10/16/20		PREPARED FOR:	
CHECKED BY: K.R.		DRAWN: 10/18/20		RED WILLOW PRODUCTION CO.	
FILE NO. RW132WP4		JOB NO. RW132		NORTHSTAR SURVEYING & MAPPING, INC. 768 County Rd. 308 DURANGO, CO. 81303 (970) 385-0851	

SURFACE LOCATION: 254' FSL & 326' FWL

**LATERAL #4 BOTTOM HOLE LOCATION: 1042' FSL, 200' FEL
SECTION 17, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO.**



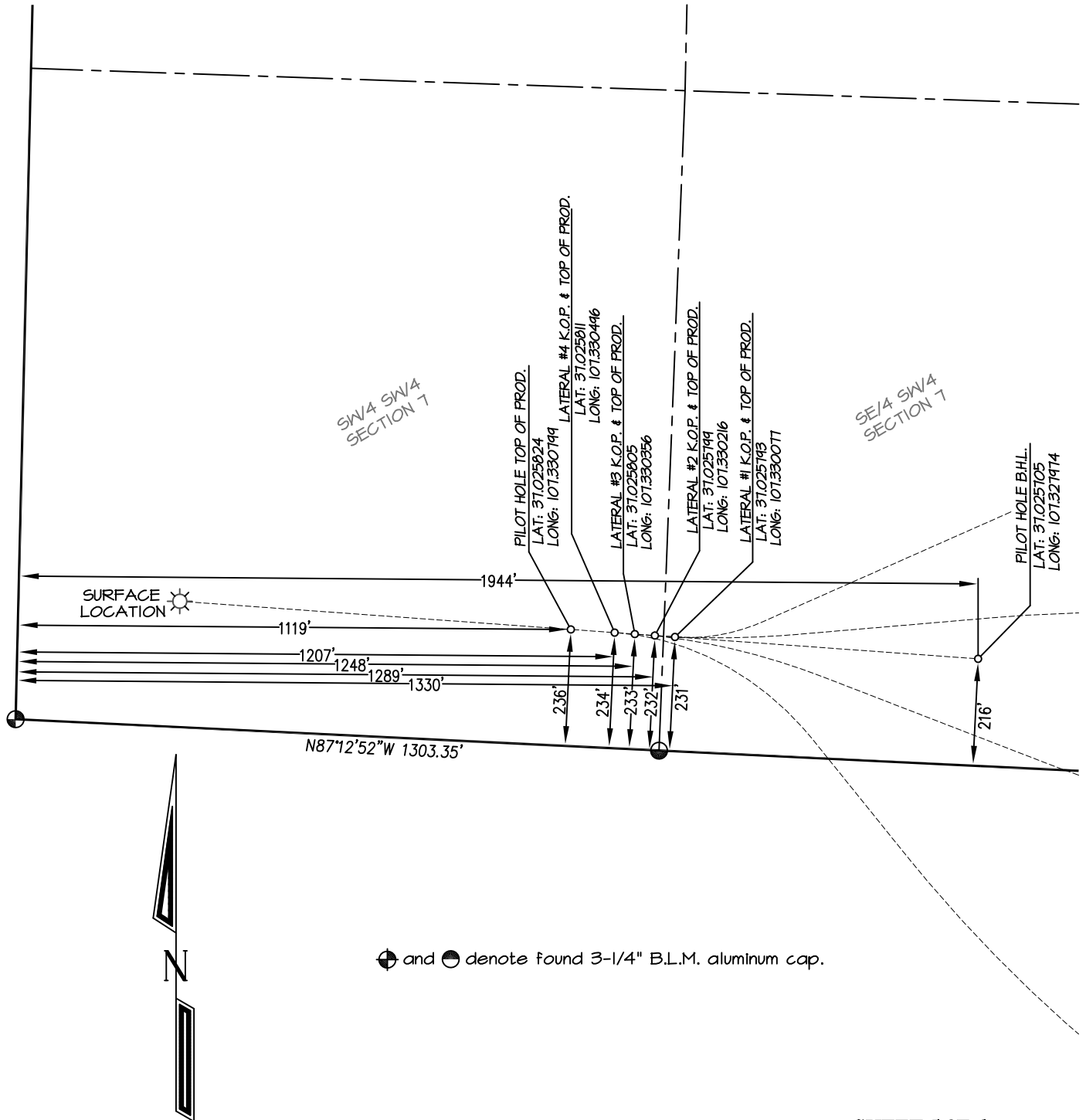
DRAWN BY: K.R. CHECKED BY: K.R. FILE NO. RW132WPA	SURVEYED: 10/16/20 DRAWN: 10/18/20 JOB NO. RW132	PREPARED FOR: RED WILLOW PRODUCTION CO.
	NORTHSTAR SURVEYING & MAPPING, INC. 768 County Rd. 308 DURANGO, CO. 81303 (970) 385-0851	

RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5

SURFACE LOCATION: 254' FSL & 326' FWL

SECTION 7, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO. GROUND LEVEL ELEVATION: 6160'

PILOT & LATERAL KICKOFF/TOP OF PRODUCTION DETAIL



GRAPHIC SCALE 1"=300'



NOTE:

SEE SHEET 7 OF 7 FOR COORDINATE TABLE,
SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

SHEET 5 OF 6

REVISED: 10/21/20

SURVEYED: 10/16/20

DRAWN BY: K.R.

CHECKED BY: K.R.

FILE NO. RW132WP4 JOB NO. RW132

PREPARED FOR:

RED WILLOW PRODUCTION CO.

NORTHSTAR
SURVEYING & MAPPING, INC.

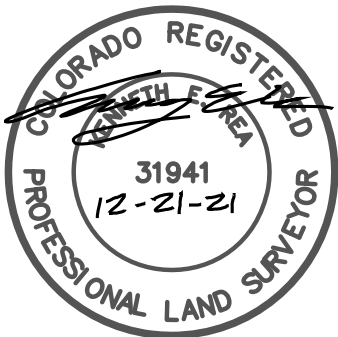
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5**SURFACE LOCATION: 254' FSL & 326' FWL****SECTION 7, T-32-N, R-4-W, N.M.P.M., ARCHULETA COUNTY, COLORADO. GROUND LEVEL ELEVATION: 6160'**

NORTH CARRACAS 32-4 7F-5	CSZ NAD '83	NAD '83	TIES	SEC/TWP/RNG
SURFACE HOLE LOCATION	N (Y) = 1,136,072.61' E (X) = 2,464,747.54'	LAT: 37.025938°N LONG: 107.333512°W	FSL = 254' FWL = 326'	SECTION 7, T-32-N, R-4-W
PILOT HOLE - TOP OF PRODUCTION	N (Y) = 1,136,015.53' E (X) = 2,465,538.64'	LAT: 37.025824°N LONG: 107.330799°W	FSL = 236' FWL = 1119'	SECTION 7, T-32-N, R-4-W
PILOT HOLE - BOTTOM HOLE LOCATION	N (Y) = 1,135,956.12' E (X) = 2,466,362.56'	LAT: 37.025705°N LONG: 107.327974°W	FSL = 216' FWL = 1944'	SECTION 7, T-32-N, R-4-W
PROPOSED TOP OF PRODUCTION & KOP LATERAL #1	N (Y) = 1,136,000.33' E (X) = 2,465,749.29'	LAT: 37.025793°N LONG: 107.330077°W	FSL = 231' FWL = 1330'	SECTION 7, T-32-N, R-4-W
PROPOSED BOTTOM HOLE LOCATION LATERAL #1	N (Y) = 1,137,022.19' E (X) = 2,474,870.62'	LAT: 37.029086°N LONG: 107.298907°W	FSL = 1521' FEL = 200'	SECTION 8, T-32-N, R-4-W
PROPOSED TOP OF PRODUCTION & KOP LATERAL #2	N (Y) = 1,136,003.27' E (X) = 2,465,708.61'	LAT: 37.025799°N LONG: 107.330216°W	FSL = 232' FWL = 1289'	SECTION 7, T-32-N, R-4-W
PROPOSED BOTTOM HOLE LOCATION LATERAL #2	N (Y) = 1,135,196.33' E (X) = 2,474,852.94'	LAT: 37.024071°N LONG: 107.298847°W	FNL = 305' FEL = 200'	SECTION 17, T-32-N, R-4-W
PROPOSED TOP OF PRODUCTION & KOP LATERAL #3	N (Y) = 1,136,006.22' E (X) = 2,465,667.93'	LAT: 37.025805°N LONG: 107.330356°W	FSL = 233' FWL = 1248'	SECTION 7, T-32-N, R-4-W
PROPOSED BOTTOM HOLE LOCATION LATERAL #3	N (Y) = 1,133,320.71' E (X) = 2,474,801.24'	LAT: 37.018918°N LONG: 107.298901°W	FNL = 2181' FEL = 200'	SECTION 17, T-32-N, R-4-W
PROPOSED TOP OF PRODUCTION & KOP LATERAL #4	N (Y) = 1,136,009.13' E (X) = 2,465,627.23'	LAT: 37.025811°N LONG: 107.330496°W	FSL = 234' FWL = 1207'	SECTION 7, T-32-N, R-4-W
PROPOSED BOTTOM HOLE LOCATION LATERAL #4	N (Y) = 1,131,349.34' E (X) = 2,474,749.54'	LAT: 37.013503°N LONG: 107.298948°W	FSL = 1042' FEL = 200'	SECTION 17, T-32-N, R-4-W

NOTES:

1. WELL LOCATION FOOTAGE CALLS MEASURED PERPENDICULAR TO SECTION LINES.
2. WELL GPS OBSERVATION PERFORMED BY KENNY REA ON 12/12/2021 - PDOP VALUE = 1.9
3. BEARINGS & DISTANCE SHOWN ARE FIELD MEASURED UNLESS OTHERWISE NOTED.
4. ALL MEASURED DISTANCES SHOWN ARE GRID DISTANCE WITH NO SCALE FACTOR APPLIED.
5. BEARINGS ARE BASED ON THE NORTH AMERICAN DATUM OF 1983, COLORADO SOUTH STATE PLANE COORDINATE SYSTEM, ZONE 0503.
6. ELEVATION IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (GEOID18).



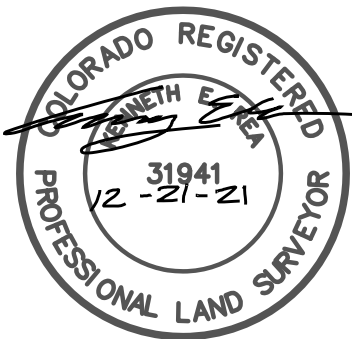
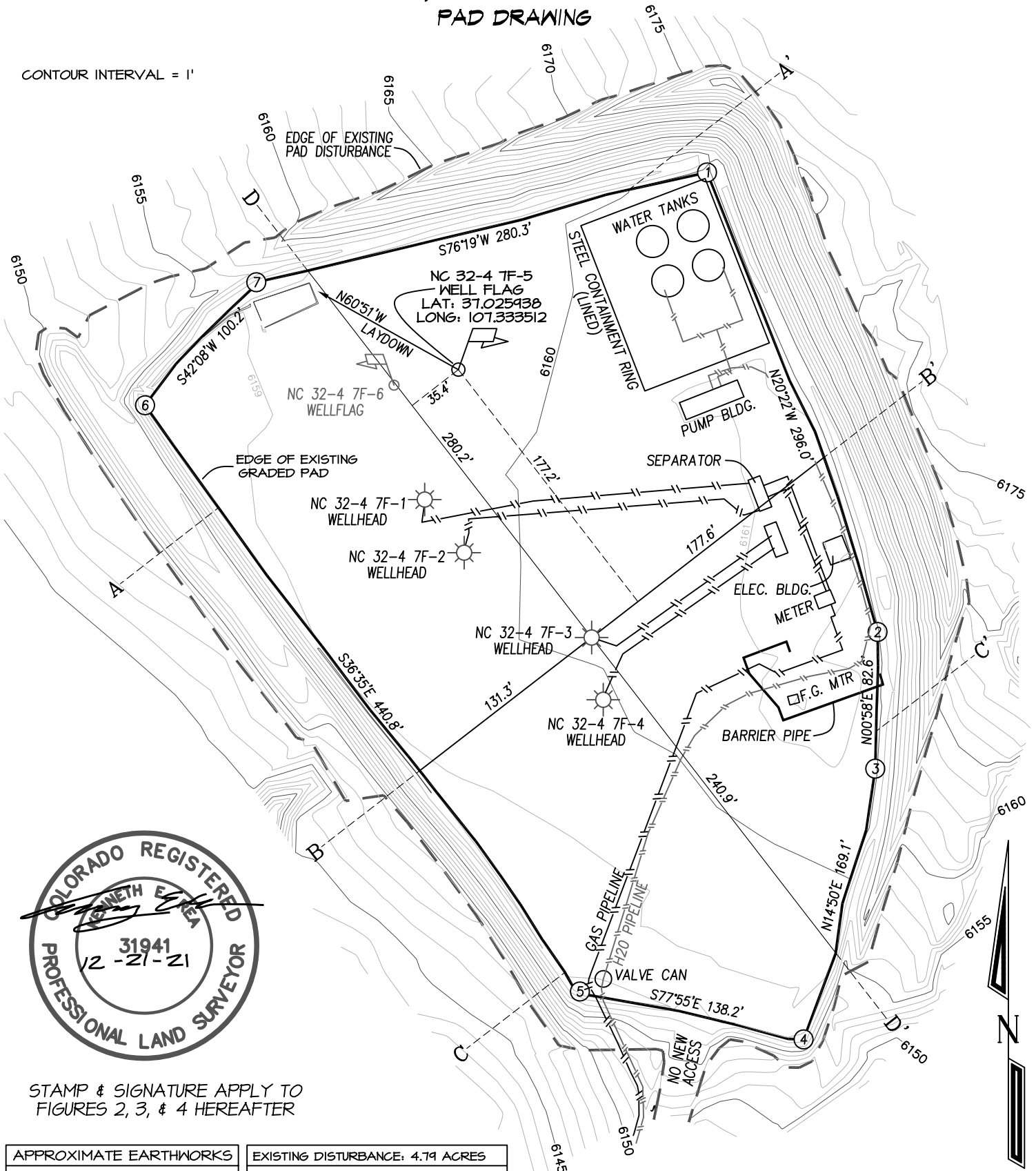
I, KENNETH E. REA, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT IS ACCURATELY PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY DIRECT SUPERVISION, AND THAT THIS PLAT IS NOT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT, AND THAT IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF FENCE, BUILDING, OR OTHER FUTURE IMPROVEMENT LINES.

SHEET 6 OF 6

DRAWN BY: K.R. CHECKED BY: K.R. FILE NO. RW132MP5 JOB NO. RW132	SURVEYED: 12/12/21 DRAWN: 12/13/21	PREPARED FOR: RED WILLOW PRODUCTION CO.
	NORTHSTAR SURVEYING & MAPPING, INC. 768 County Rd. 308 DURANGO, CO. 81303 (970) 385-0851	

RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5
254' FSL, 326' FWL, SECTION 7, T-32-N, R-4-W, N.M.P.M.,
ARCHULETA COUNTY, CO. GROUND LEVEL ELEVATION: 6160'
PAD DRAWING

CONTOUR INTERVAL = 1'



STAMP & SIGNATURE APPLY TO
 FIGURES 2, 3, & 4 HEREFTER

APPROXIMATE EARTHWORKS	EXISTING DISTURBANCE: 4.79 ACRES
CUT: N/A	PROPOSED EXPANSION: 0.00 ACRES
FILL: N/A	LEVEL PAD SIZE: 3.28 ACRES
TOPSOIL: N/A	TOTAL DISTURBED AREA: N/A
NET EXPORT: 0 CUBIC YARDS	PERMITTED AREA: N/A

FIGURE 1



RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5
254' FSL, 326' FWL, SECTION 7, T-32-N, R-4-W, N.M.P.M.,
ARCHULETA COUNTY, CO. GROUND LEVEL ELEVATION: 6160'
TYPICAL RIG LAYOUT

CONTOUR INTERVAL = 1'

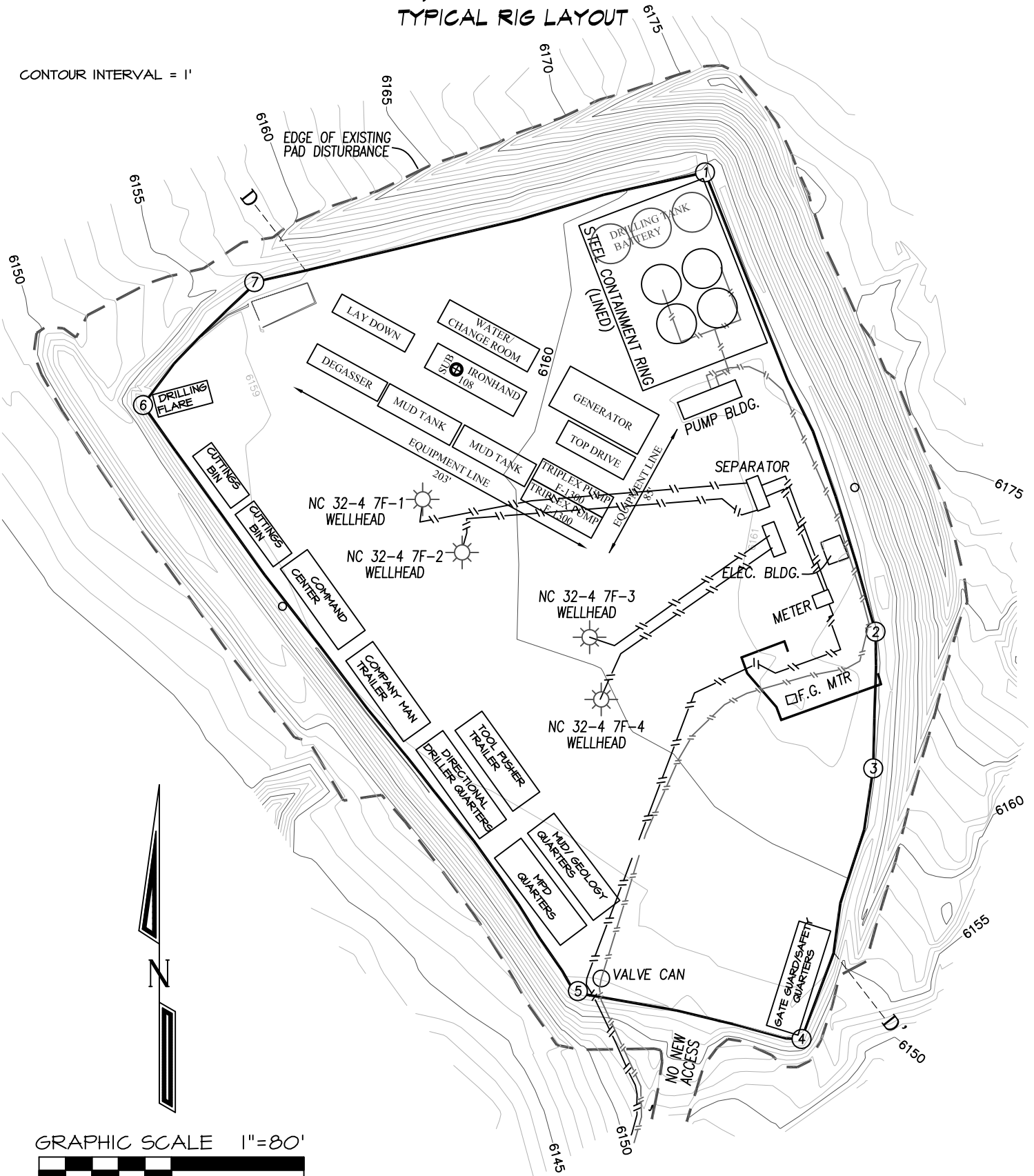


FIGURE 2

RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5
254' FSL, 326' FWL, SECTION 7, T-32-N, R-4-W, N.M.P.M.,
ARCHULETA COUNTY, CO. GROUND LEVEL ELEVATION: 6160'
FACILITY LAYOUT & RECLAMATION

CONTOUR INTERVAL = 1'

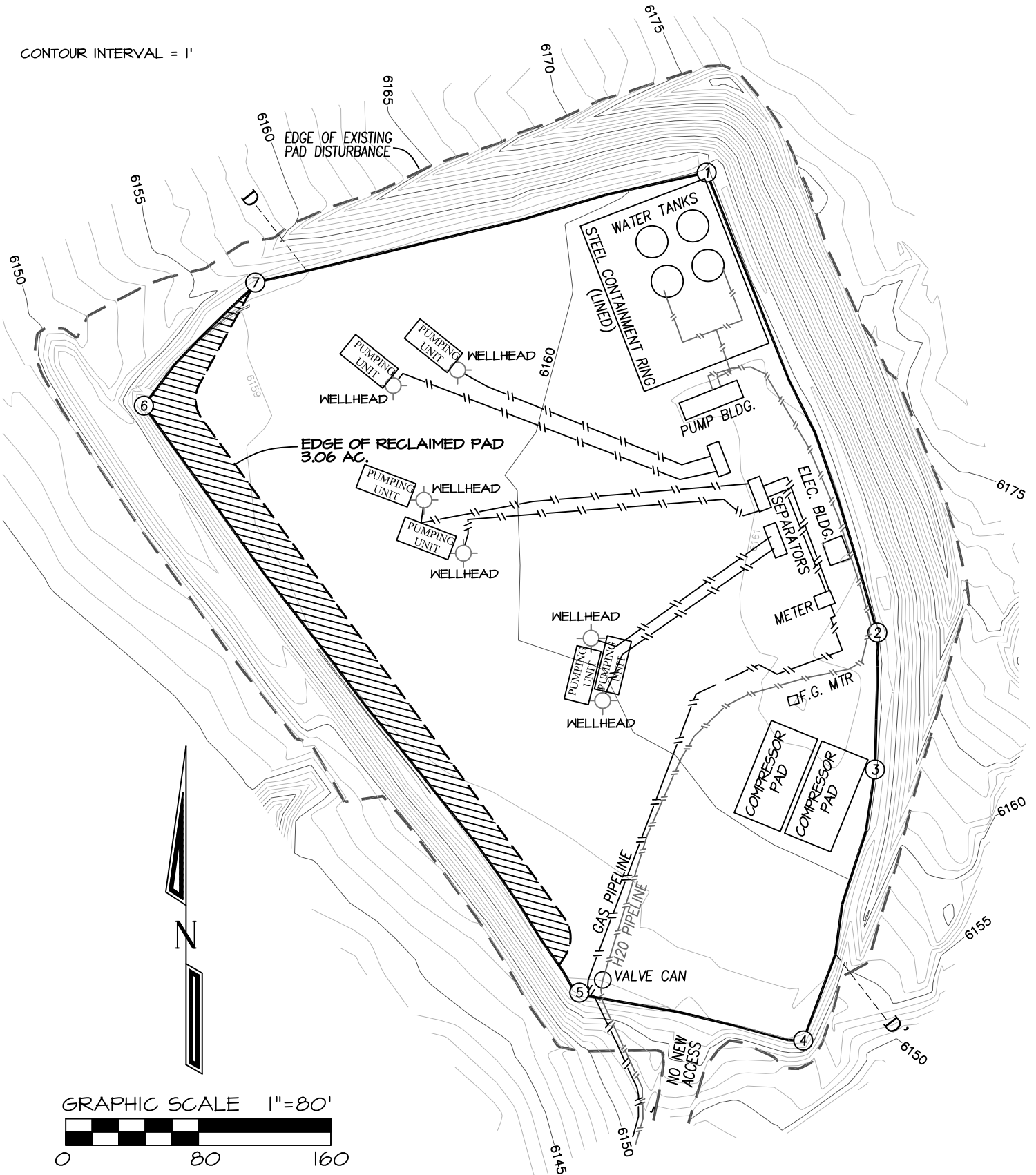
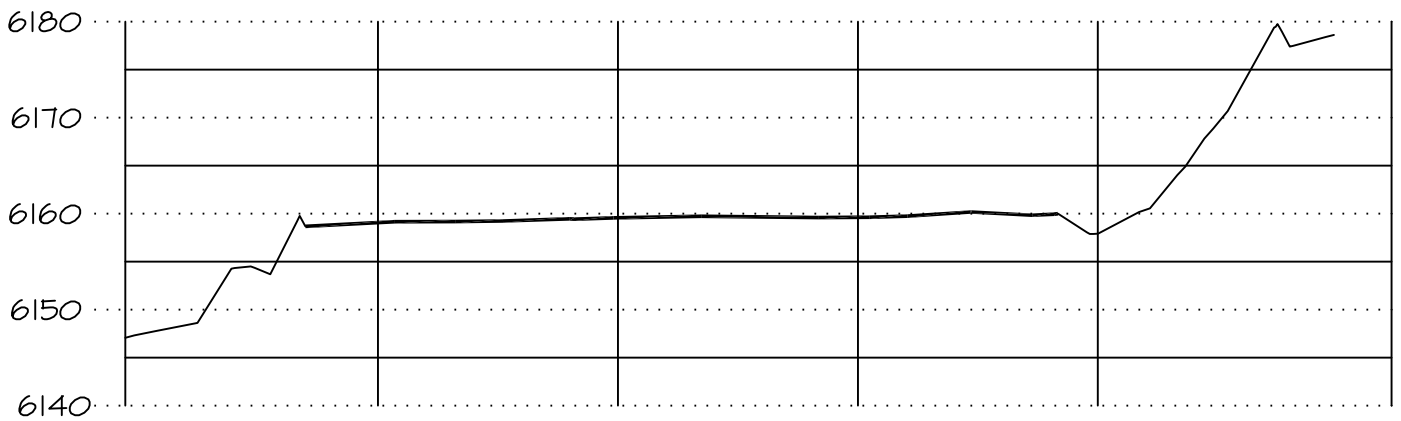


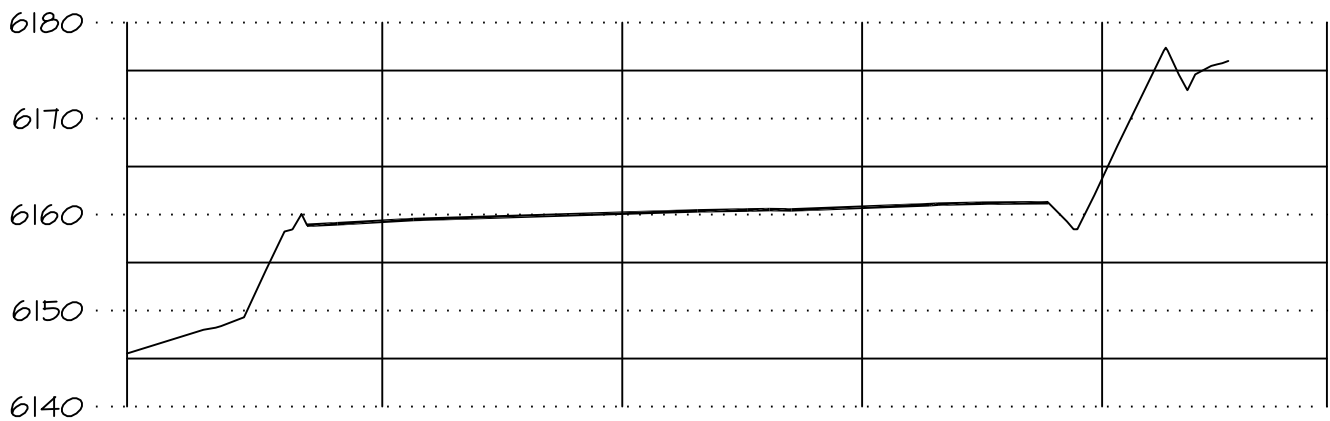
FIGURE 3

RED WILLOW PRODUCTION COMPANY: NORTH CARRACAS 32-4 7F-5
254' FSL, 326' FWL, SECTION 7, T-32-N, R-4-W, N.M.P.M.,
ARCHULETA COUNTY, CO. GROUND LEVEL ELEVATION: 6160'
PAD CROSS SECTION DETAIL

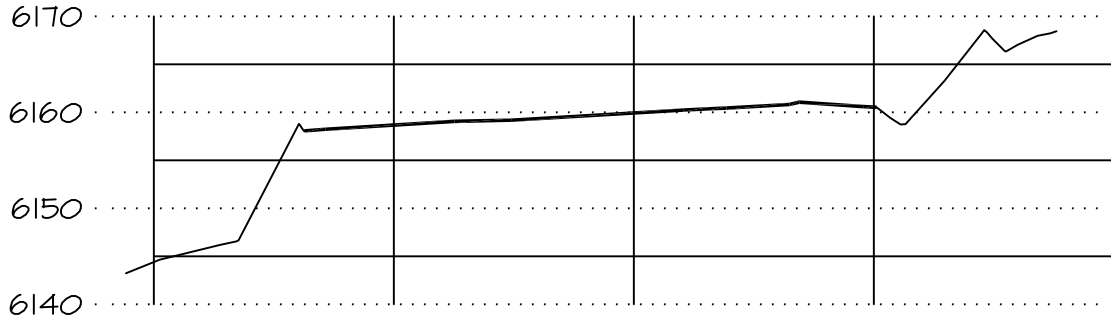
ELEV. A-A'



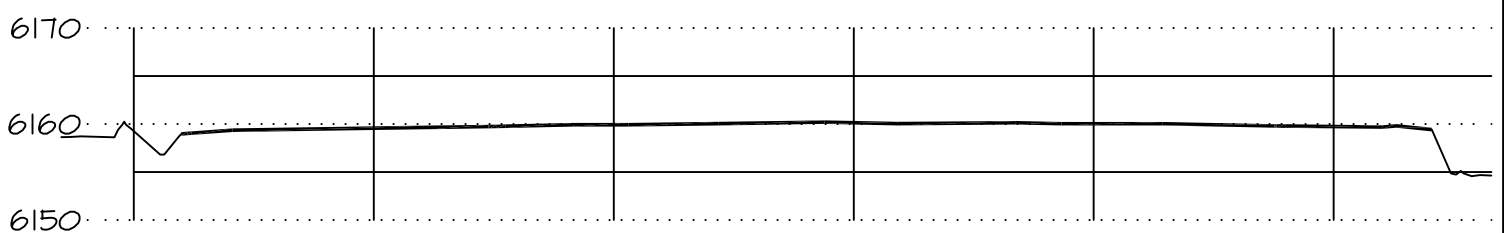
ELEV. B-B'



ELEV. C-C'



ELEV. D-D'

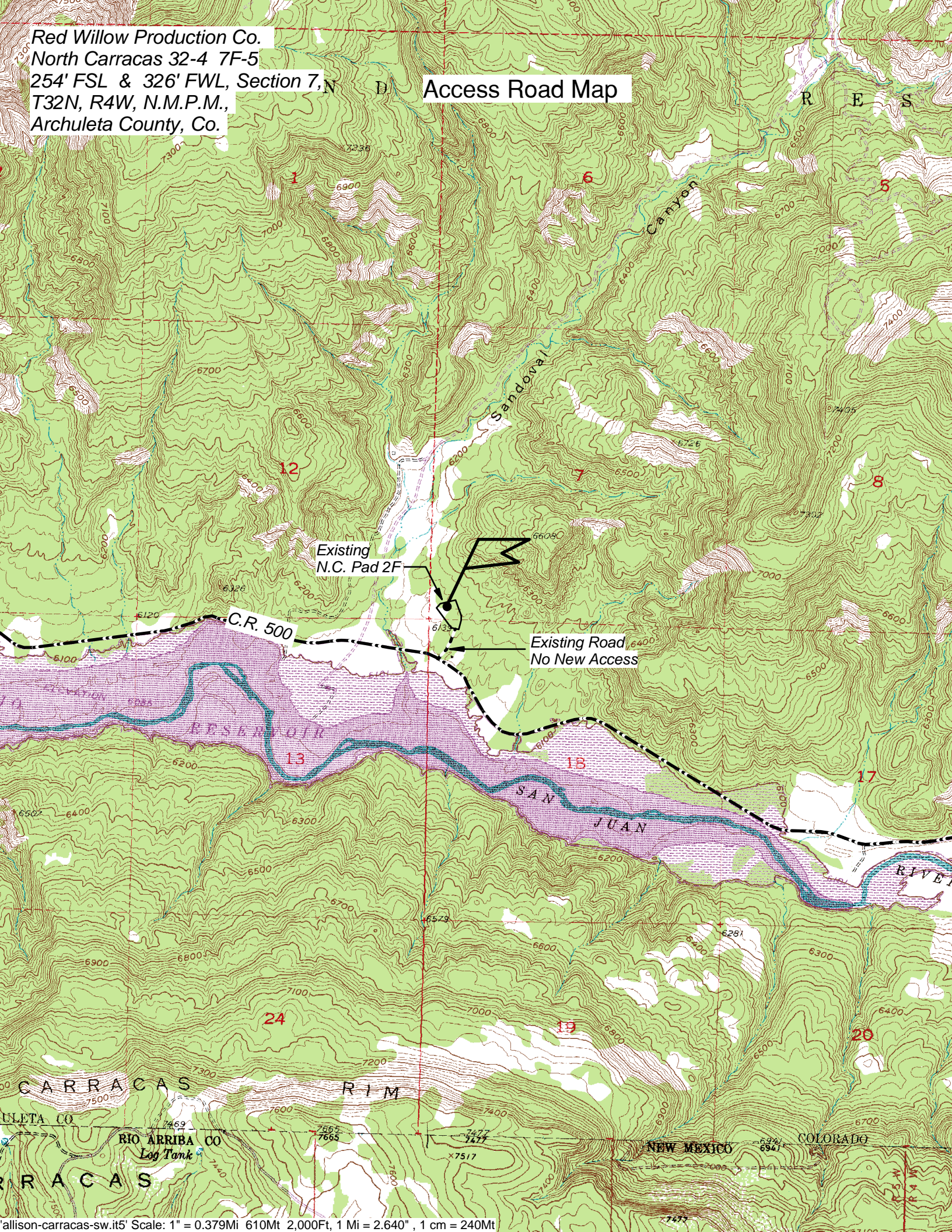


VERTICAL SCALE: 1" = 20' / HORIZONTAL SCALE: 1" = 60'

FIGURE 4

Red Willow Production Co.
North Carracas 32-4 7F-5
254' FSL & 326' FWL, Section 7, N
T32N, R4W, N.M.P.M.,
Archuleta County, Co.

Access Road Map



Red Willow Production Company
North Carracas 32-4 7F-5
254' FSL, 326' FWL, Section 7, T32N, R4W, Archuleta County, Co.



Looking North



Looking East



Looking South



Looking West



Access at Well Location



Access at Road

All photos taken on 12/12/2020

Directions from the Intersection of State Highway 172 & State Highway 151 in Ignacio, CO

to Red Willow Production Company: North Carracas 32-4 7F-5

254' FSL & 326' FWL, Section 7, T32N, R4W, N.M.P.M., Archuleta County, CO.

From the Intersection of State Highway 172 & State Highway 151 in Ignacio, CO. travel East on State Hwy 151 for 19.7 miles;

Go right (East) for on Archuleta County Road #500 for 6.7 miles;

Go left (North) following existing road for 0.1 miles to existing North Carracas Pad 2F well location.